

# *Distance Education And The New Technologies*

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*By*

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## **Preamble**

I have this challenge to describe to you in **ten minutes** the world of distance education - an educational sector that is probably the fastest growing in the world, has some 867 institutions, uses, both experimentally or developmentally, every known communication technology and reaches out to about 10 million off-campus learners in their homes, work places, clubs and regular classrooms. The past and present successes of distance education itself are good reasons for a longer discussion but the future direction of the practice and its enormous potential to educate the world would warrant at some point, a more in-depth consideration by this audience because in one way or another, distance educators are going to be working with broadcasters even more intensely than they have ever done before. In the ten minutes I have, let me make 9 points - six on the application of the technology to education and three on its implications to the practice.

### **1. Opportunities for greater synergy between educators and broadcasters, to**

- work together in more meaningful ways than the ones we have had to-date as one century is coming to an end and the next beginning, are on the increase. Interaction and interdependence in the learning environment; mass access to and individual care during learning; miniaturisation of the technology and its costs; demand and supply situation in education; are all forcing those of us in the educational sectors to seriously revisit our paradigms of teaching; review earlier inhibitions and scepticisms about broadcasting and its role in education and explore every opportunity of using the broadcasting sector to deliver education as broadcasters themselves are redefining the paradigms of broadcasting.

## 2. Across the Commonwealth, institutions of learning are embarking on ventures

- where OPEN ACCESS to learning has become the 'buzz' word. There are perhaps more than 400 institutions delivering post-secondary level academic and vocational education at a distance, a further 80 or so schools are active in pre-tertiary level distance education. I will not describe what distance education is (I will presume that you are familiar with both the term and the practise), but you may be interested to note that whereas some 25 years ago, educating people at a distance may have not been heard of and, if known, would have been seen as a less desirable choice, second rate, meant for the intellectually poor and unsuitable for the young, that perception seems to have changed in the last few years. There are still the sceptics, but in three major reports published recently by UNESCO, the World Bank and the OECD, distance education is being predicted as perhaps the most important mode of educational delivery for learning throughout life and for life in the coming decade.

## 3. Forced into responding to the increasing demands for more education,

- constrained by a shortage of fiscal and even more importantly human resources, concerned with erosion of quality in educational transactions and challenged by the skills demand of the knowledge century ahead, political leaders of most nations have been leading the crusade for educational reform including making access to learning an easier process. Willingly or otherwise, those who have been mandated with the responsibility of spreading knowledge and skills to the widespread populations of nations - in the arts, humanities, science, business, agriculture, technologies and administration - had to resort to both new and old technologies to respond to the calling of nations both rich and poor, big and small; east and west.

## 4. The 500-odd institutions that I mentioned earlier are spread all over the

- Commonwealth. All of them, in one way or another, have taken education to their students regardless of the barriers of space, time, prior knowledge, gender and affordability. These institutions are active in sectors as diverse as literacy programmes (the Allama Iqbal Open University) to doctorates in education (the UK Open University); some are small with less than a few thousand students such as the University of Papua New Guinea's External Studies Programme compared to others with as many as 250,000 students such as the Indira Gandhi National Open University (India); some of them have been in distance education for almost 50 years such as the University of South Africa (UNISA) and others are almost brand new such as the University of Sarawak in Malaysia (UNIMAS). The diversity of subjects taught by these institutions is truly amazing; gone are the days when only law and theology were tutored for the external student. Today, it is not uncommon to see courses from Family Medicine to Philosophy; from Computing Science to Art History; from Communication Technology to English Language, being taught in

the distance mode. The data in Tables 1 and 2 below illustrate this diversity by sector and subject area, respectively:

Table 1: Commonwealth Institutions offering programmes at different levels

<b>Programme Level</b>	<b>Number</b>
Primary School (children and adults)	25
Secondary School (adults and children)	58
Further Education	169
Undergraduate	90
Postgraduate	72
Continuing Education	109
Others	70
<b>TOTAL</b>	<b>593</b>

Table 2: Commonwealth Institutions offering courses in different subject areas

<b>Subject Area</b>	<b>Number</b>
Economics/Business Studies	120
Mathematics	114
Physical Sciences	107
Natural Sciences	109
Social Sciences	121
Arts	103
Engineering and Technology	85
Languages	86

Teacher Training	92
Computer and Information Technology	76
Law	60
Medical and Health Sciences	59
Agriculture	45
Community Education	35

5. Distance education, prior to the mid-sixties, relied mostly on print and

- correspondence; a few really bold institutions ventured into the use of audio but not much more; radio lessons for primary school level education were all right but at the post-secondary level they were anathema. Nineteen sixty nine witnessed the founding of the UK Open University and that institution's association with the BBC. The synergy between these two remarkable institutions resulted in university level courses using radio, broadcast television, print, correspondence and interpersonal tuition. Since then, many open universities as well as conventional ones have been using a multitude of media to deliver curriculum to widely dispersed student populations. Over the last 26 years, many barriers and inhibitions in the use of non-print media for all levels of education seem to have been broken down. The mixture of media used in distance education today is as diverse and complex as the media itself. Teachers have become cleverer in the way a particular media is applied to convey a learning principle while developments in the media technology and the imaginative application of them by broadcasters have resulted in amazing programming. Table 3 lists the examples of media technologies used in the pursuit of distance education in a few Commonwealth countries.

6. The arrival of the new millennium will change the global agenda in ways that

- we had not imagined before - as broadcasters, you know this a lot better than I. While on the one hand, the 20<sup>th</sup> century has seen some remarkable progress, on the other, it has also witnessed a widening gap between those who have and those who do not. Nowhere is this disparity more evident than in the provision of education at every level of the service. For example, in the OECD countries, a young person can expect to be in school say between 5 and 6,000 days during his or her life-time, and for every 100,000 head of population one could expect some 5,200 to be in universities. In the poorest of the other world, the school life of a person is about 300 days and less than 16 young people per 100,000 head of population get to a post-secondary institution. To make matters worse, of the 960 million illiterates world-wide, some 98% are found in the poorer countries and two-

thirds of them are women; more than 100 million children fail to complete their basic education while millions more satisfy school attendance but do not acquire essential knowledge and skills. Just to keep up with the present rate of growth alone, some 150 million post-secondary places will be needed during the next 30 years and most of these are needed in the developing parts of the world. The task ahead, if we continue to rely on traditional ways of delivering education, will be at a cost which most governments will find very difficult to muster. The option to use alternate methods for delivery cannot be a question; it must be an imperative.

7. Apart from the large numbers, the challenge to educational planners and

- deliverers will also come from another direction. It is expected that the users of educational services in the years ahead will also include large numbers of those who are currently outside the catchment. These are people in employment needing reskilling, those who are unemployed, refugees and new immigrants, millions of the physically challenged and, in many parts of the world, girls and women as well. Unless there is a radical change in the way we train and educate people, the aspirations of the next century to reduce inequality cannot be met.

8. Mass, flexible, continuous and economical delivery of education is going to

- need all of our talents, imagination and more. A number of studies during the last decade seem to indicate that the new information and communication technologies can be harnessed to serve education better and certainly would have a better chance of success than previous attempts at doing so. The optimism I express is based on two premises. The first has to do with the way and speed at which technological developments are taking place. Some of these developments include:
  - . integration of computers, radio, television and telecommunication, through digitisation/compression techniques;
  - . reduced costs and more flexible uses/application of telecommunications through developments such as ISDN/fibre optics/cellular radio;
  - . miniaturisation;
  - . increased portability, through use of radio communications and miniaturisation;
  - . increased processing power through new chips and sophisticated software; and
  - . putting all of them into one single box available at home to see movies, hear music, shop, bank and LEARN.

The second has to do with the way those in the teaching profession have begun to look at curriculum models and their role in it. There is an awareness that very few specialists are able to keep up with the rate at which knowledge is expanding and more and more teachers are becoming "navigators of sorts", advising students, facilitating information searches

and managing the learning environment rather than acting as providers of the core information. The role of the tutor will be more in terms of developing the skills of the learner to search for information, analysing and processing them (Bates, 1994).

9. D. Laurillard, in her book *Rethinking University Teaching* (1993), elegantly describes the gamut of media technologies that are available for effective teaching and (independent) learning *and* explores sensitively the complex relationship that takes place between the three entities of the learning game. Table 3 is her summary of the media that is currently available (and beginning to be used) as well as an analysis of how they support the learning process. In distance education, as in other forms of educational delivery, students learn through learning materials, reading, writing, listening, practising and discussions (with fellow students and mentors). No one media or method can accomplish all of these - the wisdom is in the appropriate selection from the many, the few that are effective.

Technology does not teach; it enables the delivery of teaching and shifts the responsibility of learning away from the teacher to the learner. In doing this, the relationship between the teacher and the learner transforms fundamentally. We are entering an era where both multi-media and hypermedia are bringing together under one umbrella, the essence of print, audio, video, computer assisted group learning and computer conferencing. At the heart of this teaching and learning transaction are institutions and academics. The challenge for this community will be to create pedagogies of learning that will set the educational parameters within which technology will contribute to effective learning.